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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/748,915	12/19/2003	Jose Perotti	KSC-12386	8416

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EXAMINER	
NGUYEN, KHAI MINH	
ART UNIT	PAPER NUMBER
2617	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/16/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/748,915	PEROTTI ET AL.	
	Examiner	Art Unit	
	Khai M. Nguyen	2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *07 February 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-46* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *1-15 and 24-38* is/are allowed.

6)☒ Claim(s) *16-23 and 39-46* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 2/7/2007 have been fully considered but they are not persuasive.

Regarding claims 16-23 and 39-46, Applicant argues, on pages 13-17 of the remarks, that Tuomainen does not disclose, teaches or suggests "while operating its power up mode, a controller detects that information is being received from the central station, the controller will maintain its remote station in the power up mode until the remote station transceiver had received the information, the controller has processed the information, and the transceiver has sent a reply back to said central station, after which said controller switches said remote station back to said low power mode for first selected period of the time".

The Examiner respectfully disagrees with Applicant's argument because Tuomainen clearly discloses that while operating its power up mode (abstract), a controller detects that information is being received from the central station (abstract), the controller will maintain its remote station in the power up mode until the remote station transceiver had received the information (abstract), the controller has processed the information (fig.3-4, abstract, col.5, lines 5-67), and the transceiver has sent a reply back to said central station (col.6, lines 27-43), after which said controller switches said remote station back to said low power mode for first selected period of the time (fig.3-4, abstract, col.5, lines 5-67, the mobile station (2) is set to the standby mode at least for the time of the reception of the paging messages (UD1), and the mobile station, which

is in the standby mode, is set to the idle mode after the reception of the paging message (UD1). In the idle mode, some of the functions of the mobile station (2) are set to the power saving mode or switched off. In the method, the mode of operation of the mobile station in the idle mode is changed from the idle mode to the standby mode to receive information transmitted in the packet-switched network either at intervals during the paging period for maintaining synchronization to the packet-switched network, or at the end of the paging period for performing synchronization to the packet-switched network again).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 16-23 and 39-46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Larsen et al. (U.S.Pub-20010036810) in view of Tuomainen et al. (U.S.Pat-7020102).

Regarding claim 16: Larsen teaches a method for communicating between one or more wireless central stations (fig.2 and 8, nodeB) and a plurality of wireless remote stations (fig.2 and 8, mobile station MSa, MSb and MSc, paragraph 0006), comprising the steps of:

periodically transmitting information from said central station to said remote stations (fig.2 and 8, mobile station MSa, MSb and MSc, paragraph 0026-0027, 0161);

Larsen fails to specifically discloses operating one or more of said remote stations in first and second alternating power modes, said modes including a low power mode during which remote station transceiver is not operating and a power up mode during which said transceiver is operating, said controller being programmed to control said power modes such that said remote station is operated in a repeating cycle of said low power mode for a first selected period of time followed by said power up mode for a second selected period of time as long as no information is being received from said central station, but if during said power up mode, said controller detects that information is being received form said central station, said controller maintains said remote station in said power up mode until said remote station transceiver has received said information, said controller has processed said information and said transceiver has sent a reply back to said central station, after which said controller switches said remote station back to said low power mode for said first selected period of time. However, Tuomainen teaches operating one or more of said remote stations in first and second alternating power modes (fig.1-2, abstract, col.5, lines 39-67), said modes including a low power mode during which remote station transceiver is not operating and a power up mode during which said transceiver is operating (fig.1-2, abstract, col.5, lines 39-67), said controller being programmed to control said power modes such that said remote station is operated in a repeating cycle of said low power mode for a first selected period of time followed by said power up mode for a second selected period of time as long as no information is being received from said central station (fig.3-4, abstract, col.5, lines 5-67), but if during said power up mode (fig.3-4, abstract), said controller detects

that information is being received form said central station (fig.1-2, abstract, col.5, lines 39-67), said controller maintains said remote station in said power up mode until said remote station transceiver has received said information (fig.3-4, abstract, col.7, lines 45-60), said controller has processed said information and said transceiver has sent a reply back to said central station (col.6, lines 27-43), after which said controller switches said remote station back to said low power mode for said first selected period of time (fig.3-4, abstract, col.5, lines 5-67, col.6, lines 27-43). Therefore, it have been obvious to one having ordinary skill the art at the time the invention was made to apply the teaching of Tuomainen to Larsen to reduce the power consumption of the mobile station.

Regarding claim 39: Larsen teaches a wireless instrumentation system (fig.1-2), comprising:

at least one central station (fig.2 and 8, nodeB) including an RF transceiver and a controller (fig.2 and 8, nodeB has antenna and connected to RNC); and

a plurality of remote stations (fig.2 and 8, mobile station MSa, MSb and MSc, paragraph 0006) for transmitting communications to and receiving communications from said central station (fig.2 and 8, paragraph 0026-0027, 0032), each said remote station including an RF transceiver and a controller (mobile station (cell phone or PDA or laptop) included transceiver and CPU);

wherein, said central station controller (fig.2and 8, nodeB and RNC) is programmed to transmit information from said central station to said remote stations

(fig.9, relay node MSc (forward between nodeB-MSc, MSc-MSb and MSb to Msa), paragraph 0014, 0166, 0199-0206); and

Larsen fails to specifically discloses each said remote station controller is programmed to operate said remote station in first and second alternating power modes, said modes including a low power mode during which said remote station transceiver is not operating and a power up mode during which said transceiver is operating, said controller being programmed to control said power modes such that said remote station is operated in a repeating cycle of said low power mode for a first selected period of time followed by said power up mode for a second selected period of time as long as no information is being received from said central station, but if during said power up mode, said controller detects that information is being received from said central station, said controller maintains said remote station in said power up mode until said remote station transceiver has received said information, said controller has processed said information and said transceiver has sent a reply back to said central station, after which said controller switches said remote station back to said low power mode for said first selected period of time. However, Tuomainen teaches each said remote station controller is programmed to operate said remote station in first and second alternating power modes (fig.1-2, abstract, col.5, lines 39-67), said modes including a low power mode during which said remote station transceiver is not operating and a power up mode during which said transceiver is operating (fig.1-2, abstract, col.5, lines 39-67), said controller being programmed to control said power modes such that said remote station is operated in a repeating cycle of said low power

mode for a first selected period of time followed by said power up mode for a second selected period of time as long as no information is being received from said central station (fig.3-4, abstract, col.5, lines 5-67), but if during said power up mode (fig.3-4, abstract,), said controller detects that information is being received form said central station (fig.1-2, abstract, col.5, lines 39-67), said controller maintains said remote station in said power up mode until said remote station transceiver has received said information (fig.3-4, abstract, col.7, lines 45-60), said controller has processed said information and said transceiver has sent a reply back to said central station (abstract, col.6, lines 27-43), after which said controller switches said remote station back to said low power mode for said first selected period of time (fig.3-4, abstract, col.5, lines 5-67, col.6, lines 27-43). Therefore, it have been obvious to one having ordinary skill the art at the time the invention was made to apply the teaching of Tuomainen to Larsen to reduce the power consumption of the mobile station.

Regarding claims 17 and 40, Tuomainen and Larsen further teach the method and system of claims 16 and 39, wherein said first and second selected time period: are adjustable either by said controller in said remote station or by a controller in said central station (see Toumainen, fig.3-4, col.5, lines 5-67, col.6, lines 27-43).

Regarding claims 18 and 41, Tuomainen and Larsen further teach the method and system of claims 16 and 39, wherein at least one of said remote stations includes modules that can be selectively operated by said controller during said low power mode and said power up mode (see Toumainen, fig.3-4, col.5, lines 5-67, col.6, lines 27-43).

Regarding claims 19 and 42, Tuomainen and Larsen further teach the method and system of claims 16 and 39, wherein said central station is programmed to send information to each of said remote stations repeatedly until said remote stations acknowledge receipt of said information (see Toumainen, col.6, lines 63-67).

Regarding claims 20 and 43, Tuomainen and Larsen further teach the method and system of claims 16 and 49, wherein each of said remote stations is associated with a measurement sensor and can send sensor measurement data back to said central station (see Toumainen, fig.6-7, col.2, lines 28-47).

Regarding claims 21 and 44, Tuomainen and Larsen further teach the method and system of claims 20 and 43, wherein at least one of said remote stations includes a processor for analyzing measurement data generated by said sensor (see Toumainen, fig.6-7, col.2, lines 28-47).

Regarding claims 22 and 45, Tuomainen and Larsen further teach the method of claims 16 and 39, wherein each of said remote stations is modular in construction and includes a power module (see Toumainen, fig.3-4, col.5, lines 5-67, col.6, lines 27-43), a transceiver module and a custom module said custom module being selected in accordance with a particular sensor associated with the remote station (see Toumainen, fig.6-7, col.2, lines 28-47).

Regarding claims 23 and 46, Tuomainen and Larsen further teach the method of claims 22 and 45, wherein said controller is programmed to selectively power up any of said modules (see Toumainen, fig.3-4, col.5, lines 5-67), depending upon information

received from said central station (see Toumainen, fig.3-4, col.5, lines 5-67, col.6, lines 27-43).

Allowable Subject Matter

4. Claims 1-15 and 24-38 are allowed.

Applicant's independent claims 1 and 24: The present in invention is directed to a method for communicating between at least a first wireless central station and a plurality of wireless remote stations in a wireless instrumentation system, the independent claim identifies the patentably distinct feature "determining from said central station whether one or more of said remote stations, has become a lost station due to a communication failure between said central station; in response to determining that a remote station has become a lost station, identifying from said central station at least one of said remote stations that can act as a relay station that can relay information from said central station to said lost station or to another of said remote stations that can also act as a relay station; and transmitting information between said central station and said lost station via said one or more relay stations". Applicant's independent claims 1 and 24 comprise a particular combination of elements, which is neither taught nor-suggested by prior art.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submission should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Khai M. Nguyen whose telephone number is 571.272.7923. The examiner can normally be reached on 8:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph feild can be reached on 571.272.4090. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Khai Nguyen
Au: 2617

4/4/2007

JOSEPH FEILD
SUPERVISORY PATENT EXAMINER